From the Commander's Mind To Steel on Target

LIEUTENANT COLONEL MATTHEW T. HALE
MAJOR JOHN MARK MATTOX

The historical experience of the Army's combat training centers has identified several problems that consistently reduce the effects of indirect fires. Some of these problems stem from a general misunderstanding of the role fires play in combined arms operations. Others stem from the inability of key leaders to articulate that role. While the problems differ in their specifics, they all indicate that indirect fires must be more effectively integrated into maneuver operations if units are to achieve the best effects of fire delivery systems.

This lack of effective fire support integration is a function of two things: First, maneuver commanders often tend to provide direction that is too general. Second, fire support personnel at all echelons sometimes fail to ask maneuver commanders the searching questions that might lead to the production of effective fire support plans. Both of these symptoms point to the need for a methodology that will make sure the commander's intent for fires translates directly into steel on target.

A New Vision of Fire Support

For many generations, the Army's doctrinal manuals have instructed maneuver commanders to spell out a concept of fires along with a concept of operations. In the concept of fires, the commander must "describe how fires will be used to support the maneuver commander's concept of operations" and to "address the priority of fire support" (Field Manual 101-5, *Staff Organizations and Operations.* The following example has been cited as an adequate statement of a brigade commander's intent for fires:

Priority of fires during Phase I to 1st Bn, 16th Inf. Priority of fires for Phase II to 1st Bn, 22d Inf. An additional COLT [combat observation and lasing team] *has been allocated from div arty to support the brigade for Copperhead missions and laser designation of CAS* [close air support] *precision munitions. The division commander retains FASCAM employment authority.* (FM 6-20-50, *Fire Support for Brigade Operations (Light).)*

This example highlights one cause of the ineffective integration of indirect fires in combined arms operations. In the example, the commander assigns a priority of fires to subordinate units, but he never actually says what he wants the indirect fires to accomplish. He merely reports some general facts concerning the fire support assets that he has been allocated.

Likewise, consider the following example of a "concept of fires" paragraph at the battalion task force level:

Priority of field artillery (FA) fires from the LD/LC to PL GRAY is to the scout platoon. Tm A has priority of mortar fires. Scout Platoon has two priority Copperhead targets and one FA priority target. Tm A has two mortar priority targets. Battalion COLT moves with the scout platoon and occupies a position vicinity PA075733 and prepares to lase priority targets for the scout platoon vicinity objectives LEE and JEB. Scout platoon is responsible for initiating smoke missions to support attacks by Tm A and Co C. A Battery, 1-42 FA, will be available to provide smoke. Priority of FA fires shifts to Tm A after it crosses PL GOLD. Tm A has two FA priority targets. After Objs LEE and BOWIE are seized and Co C crosses PL GRAY, priority of FA fires is to Tm A,

Co C, and Co B, in that order. If the TF receives air assets, priority of fires is to SEAD [suppression of enemy air defenses].

In this example, the commander provides a few more details. In addition to specifying the priority of fires, he also assigns priority targets, and he attaches a COLT to the scout platoon and assigns the scout platoon to emplace artillery-delivered smoke. He does not, however, state what he wants his assignment of priority of fires, priority targets, the COLT, or the smoke to accomplish. In short, the one critical thing that is missing from the commander's concept for fires—the statement of his intent—is his *intent*!

Consider the following concept of maneuver: "I want the brigade to attack swiftly and violently, massing all combat power at the decisive point in time and space." No maneuver commander would ever regard such a statement as an adequate expression of a concept of *maneuver*. Yet, that is precisely the kind of statement that some commanders are content to provide as a concept of *fires*.

Why Provide a Commander's Intent for Fires?

The sole purpose of fire support is to enable the maneuver commander to accomplish a tactical mission. Moreover, all mainstream tactical missions that seek a decision require the use of fires. But if fires are to enable maneuver commanders at any level—platoon through corps—to accomplish their missions, fire support personnel at the corresponding echelons must know two things: the commander's intent for maneuver, as revealed in his stated *concept of maneuver*, and the commander's intent for fires, as revealed in his stated *concept of fires*.

Like all members of the battle staff, the fire support personnel learn directly from the commander himself what he expects maneuver and fires to accomplish. Properly understood, the commander's intent for maneuver and his intent for fires should be so completely intertwined that they might be considered two sides of the same coin. Except in the most unusual circumstances, neither maneuver without fires nor fires without maneuver will be decisive on the battlefield.

If fires are to enable maneuver commanders at any level to accomplish their missions, fire support personnel at the corresponding echelons must know the commander's intent for maneuver, as revealed in his stated concept of maneuver, and the commander's intent for fires, as revealed in his stated concept of fires.

Although they understand that coordinating fires and maneuver is critical, maneuver commanders sometimes find that the scheme of fires conceived by fire supporters in response to their stated concepts does not adequately reinforce maneuver and, hence, does not serve as a true combat multiplier. This may happen for various reasons. In some cases, maneuver commanders may assume that as long as they state what they consider a clear concept of maneuver, there is no particular need to explain allied concepts (such as fire support or combat service support). In other cases, maneuver commanders may feel inclined to defer automatically to the judgment of the fire support advisor on all matters related to fire support. Still others may not see themselves as deferring uncritically to that judgment, but simply assume that, given a concept of maneuver, fire supporters should be able to produce a complementary scheme of fires without additional guidance.

While all of these assumptions are a compliment to fire supporters, they deny the reality that fire supporters cannot know what the commander expects fires to accomplish unless he tells them. Again, however, guidance to the effect that fires should be "violent" and "massed" is no guidance at all. The commander who seeks to achieve maximum benefit from supporting fires must ask himself the following central questions:

"What effects on the enemy do I require in each phase of my maneuver plan?"

"How do I envision fire supporting my ground tactical plan?"

The answers to these questions constitute the first step toward translating the commander's intent for fires into steel on target on the battlefield.

Translating Intent into Reality

Like any other battlefield operating system, fires function best when they are assigned a clear task and purpose, but clarity alone is not enough. The tasks assigned to fires also must be carefully considered and prioritized so that ordnance delivery systems can perform well a few key tasks. For example, "I want you to provide a wall of steel that will stop motorized rifle regiment X at phase line Y" certainly is clear, but it is also unrealistic because it is not sufficiently constrained. On the other hand, "I want you to disrupt formation X when it is delayed on obstacle Y at triggering event T" is both focused and constrained. The commander must issue detailed concept statements of this kind to maximize the effect of fires in his maneuver space.

Naturally, not every task is appropriate as a fire support task. What does count as an appropriate fire support task will change from mission to mission on the basis of standard METT-T considerations (mission, enemy, terrain, troops, and time). Additionally, the technical characteristics of the available fire support systems (ranges, trajectories, ammunition, etc.) further restrict the range of possibilities for the application of fire support.

At this juncture, the question naturally arises, "Just how much detail must the commander include in his concept for fire support?" The answer is, enough to enable fire support planners to understand exactly what he expects fires to accomplish. The natural corollary question is, "But isn't the job of fire supporters to work out the details of how to accomplish the commander's intent?" The answer is "yes." But the commander and the fire supporter also must have a tacit agreement, one that approaches a contract, on what supporting fires can reasonably be expected to do.

Some maneuver commanders might object to the suggestion that they should "contract" with their supporting units. It should be noted, however, that this is precisely what the maneuver commander does when he issues his concept of maneuver to his subordinate maneuver commanders. Of course, he can elect to change the terms of the contract, for whatever reason, and subordinate commanders will react as required to achieve success in light of the new instructions. Nevertheless, the commander must realize that any deviation from either the maneuver contract or the fire support contract comes at a cost, either in time, flexibility, or the efficient use of resources. Therefore, as it pertains to the deliberate planning process, the question is not whether the commander's operational concept is a contract in the relevant sense of the

EFST WORKSHEET

MISSION Defend in sector **DTG** NLT 110300 Dec 98

TASK #1	Limit ADA
PURPOSE	Facilitate free movement of friendly aircraft
METHOD	Close fight—destroy ADA immediately Deep fight—coordinate with DIVARTY for deep SEAD
EFFECT	No friendly aircraft lost
TASK #2	Disrupt 5th MRD formations
PURPOSE	Facilitate destruction of 5th MRD west of PL MAINE
METHOD	3 methods a) Target all obstacles with 105mm; battalion FSOs assign observers for obstacles in their sectors b) DIVARTY fires FASCAM in LEACH Pass; COLTs 1 & 2 observe c) CAS attacks AGMB in CAS Box 1 (EA HACK); FAC-A observes
EFFECT	No formation larger than MRP crosses PL MAINE
TASK #3	Disrupt RAG (counterfire)
PURPOSE	Prevent RAG from initiating Phase III fires against 1BCT
METHOD	Q-36-Az of search 4500; counterfire with 105mm Request Q-37 coverage beyond common sensor boundary, H + 1 thru H + 3; counterfire with MLRS (coordinate with DIVARTY). Establish CFFZ at vic. NV 3326-NV3526-NV33224-NV3524
EFFECT	RAG unable to mass between PL ALABAMA & PL TENNESSEE H + 1 thru H + 3

Figure 1

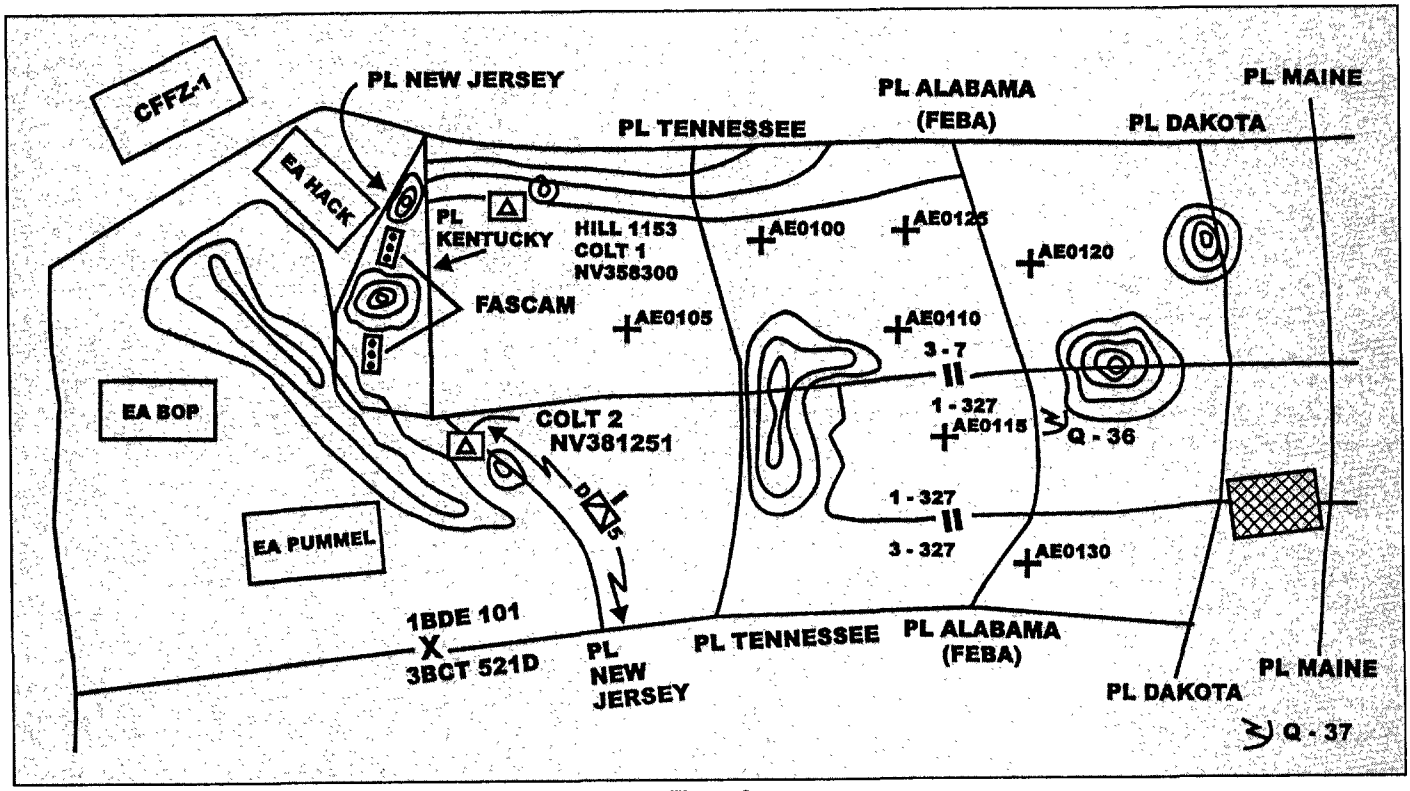

Figure 2

word; the question is more a matter of which mechanism to use to execute the contract most effectively.

The contract forms most effectively when the maneuver commander clearly specifies his essential fire support tasks (EFSTs), namely, those tasks that fires *must* accomplish in order for the maneuver commander's plan to succeed. The fire supporter, for his part, identifies for the commander any aspect of his expectations that exceeds the capabilities of available assets. Similarly, the fire supporter recommends the use of fire support capabilities that the maneuver commander's vision may have omitted (non-lethal fires, for example) or that appear not to be integrated to their full potential. In either case, the resulting EFSTs constitute a contractual understanding between maneuver commander and fire supporter as to the role fire support assets will play in the operation.

The Emerging Doctrine of Fire Support

Both the philosophical basis for EFSTs and the fundamental techniques associated with their application are detailed in the U.S. Army Field Artillery Center's 1998 White Paper entitled "Fire Support Planning for the Brigade and Below." The White Paper is available on-line at http://www.irwin.army.mil/wolves/white_paper.htm, and the substance of the paper will be incorporated into the forthcoming edition of Field Manual 6-20-40, *TTP for Fire Support for Brigade Operations*, scheduled for release in 2000. It is safe to suggest that the doctrine espoused by the White Paper represents the most significant advance in the theory of fire support in the latter half of the century. Moreover, when properly applied, this doctrine assures maneuver commanders that they will find it easier than ever before to use fires to achieve their battlefield aims.

According to the White Paper, each EFST consists of four components: *task*, *purpose*, *method*, and *effect*. Proper attention to each of these components is crucial for accomplishing the commander's intent for fires.

TASK—The task specifies exactly what the commander wants the use of fires to accomplish. Not all tasks are appropriate for fire support. Rather, the tasks must focus upon the commander's high-payoff targets (HPTs). This kind of focus ensures that fire support assets are not used piecemeal on targets of only fleeting importance. Of course, this means that many targets that are not HPTs may not be targeted at all. (Then again, precisely the reason something is not designated an HPT is that, when considered in the context of the whole operation, its destruction or disablement may have little or nothing to do with overall outcomes.) Most tasks appropriate for fire support may be expressed in terms of the following action verbs:

- *Disrupt* (break apart, disturb, or interrupt an enemy function, such as the ability to counterattack).
- *Delay* (slow the movement of a unit).
- *Limit* (restrict the enemy's ability to pursue a particular course of action).

An example of an appropriate task is: *Disrupt the regimental artillery group (RAG).*

Purpose—The purpose specifies the role the task will play in the overall operational scheme. An example of a purpose for the above task is: *Prevent the RAG from initiating Phase III artillery fires against 1st Brigade.*

Method—Although fire support advisors are responsible for working out the technical aspects of the method, the maneuver commander's involvement here is as important as it is for task and purpose. Otherwise, the commander will not have a clear picture of the way his fire delivery systems are allocated and, hence, how well those systems are positioned to accomplish his overall intent.

The specification of the method must be highly detailed, as in the following example, which correlates with the task and purpose above:

The direct support (DS) artillery battalion Q-36 radar orients on azimuth of search 4500. The S-3 requests division artillery (DIVARTY) to provide Q-37 radar coverage and to fire counterfire targets over the corresponding area beyond the common sensor boundary. The Q-36 orients on templated RAG positions and establishes a call-for-fire-zone (CFFZ) bounded by NV339260, NV355260, NV339245, and NV355245. The Q-37 provides supplemental coverage in support of the brigade deep battle and when the Q-36 is in transit. The trigger is a radar acquisition requiring counterfire beyond the 1 Brigade CFL. Observers are the Q-36/37. The munition is 105mm HE for DS artillery, multiple launch rocket system (MLRS) for general support (GS) artillery.

Note that this method might also include the use of non-lethal fires, if available, such as the division's QUICKFIX to jam the RAG's fire nets. In any event, the commander and his fire support advisor should always be attuned to the incorporation of both lethal and non-lethal fires, as appropriate.

Effect—Here the maneuver commander specifies exactly what result he expects the completion of the related EFST to accomplish. (Some fire support planners use the term *end state* synonymously with *effect*.)

For example: *The RAG is unable to mass fires on 1st Brigade between phase line (PL) ALABAMA and PL TENNESSEE from H + 1 to H + 3.* This specification accomplishes two purposes: It provides a measure by which to assess whether a task the commander regards as mission essential has been accomplished, and it serves to ensure that neither the commander nor his fire supporter expects fire support assets to yield a result beyond their design limits. Hence, the above example may be a realistically achievable effect in a way that *Destroy the entire RAG* almost certainly would not be.

It is important to note that EFSTs are limited, as the name implies, to those fire support tasks that the maneuver commander considers truly *essential*. That does not mean a target cannot be attacked unless it is on the initial high-payoff target list (HPTL). The appearance of unanticipated tactical opportunities may, in fact, warrant a change in that list and a corresponding modification of the EFSTs. The point is that changes to the HPTL simply signal that the maneuver commander may want to modify his EFSTs—not that he wants to abandon them to attack targets that are not essential to the

ANNEX D (FIRE SUPPORT) TO FRAGO 6 TO 1 BCT OPORD NO 99-056

1. SITUATION

Indirect fire systems found in the regimental artillery groups (RAGs) of 5th MRD			
System	**Number of Units**	**Number of Tubes**	**Remarks**
2S1	1 x bn	18	15 km rg
2S19	1 x bn	18	30-40 km rg
120mm mortar	1 x btry	6	7.2 km rg

2. MISSION

1 BCT defends in sector NLT 110300DEC98 to destroy the first echelon of the 5th MRD in order to deny penetration of PL MAINE.

3. EXECUTION

ESSENTIAL FIRE SUPPORT TASK #1	
TASK	Limit effect of enemy ADA
PURPOSE	Facilitate unrestricted movement of friendly aircraft in support of 1 BCT
METHOD	DS artillery fires on ADA weapon systems immediately upon identification. DIVARTY provides long-range SEAD for ADA acquisitions beyond DS artillery range.
EFFECT	5th MRD defeated without loss of friendly aircraft.

ESSENTIAL FIRE SUPPORT TASK #2	
TASK	Disrupt maneuver formations of 5th MRD
PURPOSE	Facilitate destruction of 5th MRD by maneuver forces west of PL MAINE
METHOD	(a) 105mm artillery adjusts and fires HE on all obstacles emplaced by 1 BCT in order to disrupt the first element of the main body (MB1) and prevent MB1 from penetrating PL MAINE (the no penetration line) Trigger: MB1 stopped in an obstacle. Observers: those supporting the unit in whose area the obstacle is located (i.e., 1-327 IN, 3-327 IN, or 3-7 CAV). Targets: AE0100 (NV433293); AE0105 (NV405255); AE0110 (NV449234); AE0115 (NV465230); AE0120 (NV475225); AE0125 (NV468274); AE0130 (NV466215). (b) DIVARTY provides GS 155mm artillery to emplace ADAM/RAAMS FASCAM mine fields (AE9000 and AE9005) in LEACH LAKE PASS (north and south). 1 BCT requests 52d ID to assign an NAI sufficiently west of the 1 BCT sector in order to serve as trigger for an emplacement time of approximately twenty minutes per mine field. Observers: COLT 1 (NV358300) and COLT 2 (NV381251). (c) CAS attacks the AGMB in CAS box 1 (EA HACK) to attrit it 30%. Trigger: identification of maneuver targets in the target area. Observer: FAC-A. CAS attacks MB1 in CAS box 2 to destroy 50% of it. Observers: COLT 1 and COLT 2. On station time for CAS is 110600-111000DEC98.
EFFECT	30% of 5th MRD destroyed such that no formation larger than MRP is able to cross PL MAINE.

ESSENTIAL FIRE SUPPORT TASK #3	
TASK	Disrupt the regimental artillery group (RAG).
PURPOSE	Prevent the RAG from initiating Phase III artillery fires against First Brigade
METHOD	The direct support (DS) artillery battalion Q-36 radar orients on azimuth of search 4500. The S-3 requests division artillery (DIVARTY) to provide Q-37 radar coverage and to fire counterfire targets over the corresponding area beyond the common sensor boundary. The Q-36 orients on templated RAG positions and establishes a call-for-fire-zone (CFFZ) bounded by NV339260, NV355260, NV339245, and NV355245. The Q-37 provides supplemental coverage in support of the brigade deep battle and when the Q-36 is in transit. The trigger is a radar acquisition requiring counterfire beyond the 1 Brigade CFL. Observers are the Q-36/37. The munition is 105mm HE for DS artillery, multiple launch rocket system (MLRS) for general support (GS) artillery.
EFFECT	The RAG is unable to mass fires on First Brigade between phase line (PL) ALABAMA and PL TENNESSEE from H + 1 to H + 3.

COORDINATING INSTRUCTIONS

Firing Unit	Delivery System	Tactical Mission	Remarks
2-320 FA (-)	105 mm towed	DS	

High-Payoff Target List	When	Effect
FS (2S1, 2S19, 120mm mortar)	A	N
RISTA (BRDM, BMP, DRT)	A	N
ADA (ZSU-23, SA-9, SA-8)	I	N
MAN (TF ANGEL, TF DESTROYER, AT-5)	A	N

Subordinate Maneuver Unit	Number of conventional targets to plan	Number of FASCAM minefields to plan	Number of CAS sorties allocated
1-327 IN	2	BDE will emplace two FASCAM mine fields	BDE will control all CAS
3-327 IN	2		
3-7 CAV	2		

FSCM Location	Establishing Headquarters Effective Date-Time Group	Radius Trigger
CFL	52d Division	*****
PL NEVADA	O/O	*****
FSCL	X US Corps	*****
PL KENTUCKY	O/O	******
See APPENDIX 4 (NFA/RFA List) to ANNEX D (FIRE SUPPORT) to 52 ID (M) OPLAN 99-03-01 for a comprehensive list of 52d ID standing NFAs and RFAs.		

Additional Instructions:

The CAS window currently is scheduled to be 110600-111000DEC98. The attack aviation window currently is scheduled to be 110300-111100DEC98.

Submit CAS requests to 1 BCT FSE.

4. SERVICE SUPPORT

Ammunition for this operation is limited to the UBL currently on hand. No resupply is expected until 12 DEC 98.

5. COMMAND AND SIGNAL.

BDE CMD: XXXXX
2-320 FA BN CMD: XXXXX
OF1: XXXXX
MEDEVAC: XXXXX

Figure 3

success of the operation. Thus, on the one hand, the maneuver commander can and should expect that his fire support assets will accomplish their assigned tasks. On the other hand, he must realize that his fire support assets probably will not be available to undertake any tasks other than those he has designated essential. To that extent, the commander's list of EFSTs becomes his exhaustive list of fire support requirements for the operation. Moreover, the successful commander will quickly recognize the prudence of limiting himself to a small number of EFSTs.

EFSTs in Practice

The 1st Brigade Combat Team (1 BCT) of the 101st Airborne Division (Air Assault) used EFSTs as the basis for its fire support planning during a recent deployment to the National Training Center. This approach produced fire plans that focused upon the commander's maneuver objectives with higher resolution than the team ever enjoyed before.

This success was principally due to several critical actions by the maneuver commander. During the military decision-making process, the 1 BCT commander identified *his* EFSTs. The commander restricted these tasks to a very small number—generally three, but never more than five. The commander specified a purpose for each task, thus providing a clear picture of his intent for fire support. Where appropriate, he gave guidance (sometimes directive, sometimes suggestive) regarding the method to be used. Naturally, he left the technical details to the fire support coordinator (FSCOORD) and the fire support officer (FSO). Nevertheless, his EFSTs were not only *guiding* principles for planning all fires for the operation but also *constraining* principles. Thus, when the wargaming process suggested uses for fire support that were tangential to the commander's EFSTs, the brigade staff immediately knew that it had two choices: Either the FSCORD/FSO had to recommend to the commander a change to the EFSTs, or the staff had to solve the tangential problem by some means other than the use of fire support (perhaps by a change in the scheme of maneuver).

Throughout course of action development, the FSCOORD and FSO developed the methods for each of the EFSTs, using two tools—an EFST worksheet (Figure 1) and a concept of fires sketch (Figure 2). These two documents, used together, plainly revealed any gaps in the fire support plan and, hence, facilitated the necessary corrections to the plan. They also served as the basis for a clear and simple fire support annex (Figure 3). The FSCOORD and FSO used these documents to backbrief the 1 BCT commander on the fully

developed plan. This gave the commander a clear picture of the way fire support assets would be used to achieve his EFSTs. This clear picture enabled the commander to make an informed decision with regard to approving the plan or directing its modification.

Because the EFSTs brought into clear focus the commander's intent for fire support, the S-3 of the direct support field artillery (DS FA) battalion was able to develop an equally clear set of essential field artillery tasks (EFATs), the operational tasks required of the DS FA battalion in order to accomplish the maneuver commander's EFSTs, and hence, to achieve his intent for fire support. Thus, the test for how well the DS FA battalion was poised to execute the commander's intent became a measure of how closely the EFSTs and EFATs were linked. This test simplified the matter of detecting discontinuities between the intent for fires as it existed in the commander's mind and as it existed in the orders for implementing his intent on the ground.

The final check for continuity between the EFSTs and the EFATs occurred in the 1 BCT's fire support rehearsals.

The first key to the success of these rehearsals was that all the people in the fire support chain attended them, including the 1 BCT commander. The commander's attendance clearly demonstrated his recognition that fire support is ultimately a command responsibility and that its successful integration requires command involvement. The rehearsal centered on the commander's EFSTs and their corresponding EFATs. Because the EFSTs clearly conveyed the commander's intent for fire support, he could easily tell whether or not the EFATs briefed in the rehearsal could produce the desired results.

The second key to the success of the fire support rehearsals was that they were held before the maneuver rehearsals. This arrangement enabled the commander to fix in his mind the scheme of fire support so that he knew exactly what he could expect fire support to do when he rehearsed the maneuver plan.

The maneuver commander gains one of the greatest combat multipliers when he and his fire supporters share a vision of what he expects fires to accomplish. As the experiences of the 1 BCT of the 101st Airborne Division attest, EFSTs make that shared vision possible for two reasons: They provide a vehicle whereby the commander can convey his intent clearly; and, when fleshed out in technical detail by fire supporters, the EFSTs and the EFATs that logically flow from them tell the maneuver commander exactly what he can and cannot expect of his fire support resources.

Given the operational uncertainties of the future, the use of EFSTs might prove to be not only *a* viable way, but indeed the *only* viable way to optimize fire support planning. Nonlinear battlefields characterized by decentralized operations covering large areas are sure to pose enormous challenges. In light of those challenges, the use of EFSTs and their attendant EFATs can do much to ensure that the commander's intent for fire support is completely understood and executed—in spite of battlefield fog and friction.

Lieutenant Colonel Matthew T. Hale is fire support coordinator for 1st Brigade, 101st Airborne Division, and commander of 2d battalion, 320th Field Artillery. He previously served as division artillery operations officer for both the 25th Infantry Division and the 101st Airborne division and served on the faculty of the United States Military Academy. He is a graduate of the Academy and holds a master's degree from Stanford University.

Major John Mark Mattox is 1st Brigade fire support officer, 2d Battalion, 320th Field Artillery, 101st Airborne Division. He previously served in the 1st Infantry Division in Germany, on the faculty of the United States Military Academy, on the faculty of the United States Military Academy, and as assistant S-3 of 2d Battalion, 320th Field Artillery during Operations *Desert Shield-Desert Storm*. He is a graduate of Brigham Young University and holds master's and doctoral degrees from Indiana University.